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**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/426,380 10/25/99 GATLEY

W EASV-121-C1
EXAMINER

MM91/0723

TERRENCE (TERY ) MARTIN  
INVENSYS- INTELLECTUAL PROPERTY DEPARTME  
33 COMMERCIAL STREET  
B52-1J  
FOXBORO MA 02035

ART. UNIT, G	PAPER NUMBER
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DATE MAILED:

14  
07/23/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/426,380

Examiner

Guillermo Perez

Applicant(s)

GATLEY ET AL.

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 26-32 and 34-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26-32 and 34-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 26-32 and 34-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over E. P. Larsh (U. S. Pat. No. 1,939,399) in view of Bright et al. (U. S. Pat. No. 3,969,043) and further in view of F. N. Zimmermann et al. (U. S. Pat. No. 2,981,196).

E. P. Larsh discloses a method of enclosing a C-frame motor (3) having a motor assembly including a stator (10), a rotor (14) rotatable within the stator (10) and at least one bobbin (12) having electrical conductor windings situated thereon, the method comprising the steps of

- a. providing a mounting bracket (18) adapted to attach to the stator (10)
- b. providing a main housing (2) having an aperture, wherein the main housing (2) includes a plurality of vents (figures 2, 4-6)
- c. providing at least one impeller (4) rotatable with the rotor (14)
- d. operating the motor (3) such that rotation of the rotor (14) causes the impeller (4) to rotate to circulate air through the vents in the main housing (2) to direct a curtain of air over the motor assembly (3) to cool the motor assembly (3)

e. the step of providing a rotor shaft (5) attached to the rotor (2), wherein the impeller (4) is mounted to the rotor shaft (5) for rotation along therewith.

E. P. Larsh discloses a C-frame motor (3) comprising:

a. a stator (10) having a plurality of electrically conductive laminations,

wherein the laminations have portions which define rotor apertures and portions which define radially extended projections

f. a rotor (14) sized to be rotatably received within the rotor apertures of the stator laminations, the rotor (14) being rotatably mounted to a rotor shaft (5)

g. at least one bobbin (12) having a plurality of coils comprising at least one wound electrical conductor wherein the bobbin (12) is attached to the radially extended projections of the stator (10)

h. a main housing (2) configured to encompass the stator (10), the rotor (14) and the bobbin (12), the main housing having a plurality of vent slots;

i. an impeller (4) mounted to the rotor shaft (5) for rotation with the rotor (14), wherein rotation of the impeller (4) circulates air through the vent slots in the main housing (2) to cool the motor (3).

E. P. Larsh discloses that the end cap includes vent slots such that rotation of the impeller (4) circulates air through the vent slots formed in the end cap to cool the motor (3). E. P. Larsh discloses the provision of a main housing (2) having an aperture configured to cover the shape of the motor assembly (3). The aperture including vent openings such that rotation of the impeller (4) circulates air through the vent slots in aperture to cool the motor assembly (3) is also disclosed by E. P. Larsh. E. P. Larsh

discloses the provision of a radially extended portion on the main housing to enclose at least the bobbin. The provision of a radially extended portion on the end cap such that when the end cap is attached to the main housing, the radially extended portion encloses at least the bobbin is also disclosed by E. P. Larsh.

However, E. P. Larsh does not disclose the provision of a main housing having an aperture configured to conform to the shape of the motor assembly. E. P. Larsh does not disclose the provision of an end cap attachable to the main housing for encompassing the impeller, wherein the end cap includes a plurality of vent slots such that rotation of the impeller circulates air through the vent slots formed in the end cap to cool the motor assembly. It is not disclosed in E. P. Larsh a rotor having a plurality of laminations. E. P. Larsh does not disclose that the radially extended projection is provided to conform to the shape of the radially extended projections of the stator.

Bright et al. disclose that the main housing (18,20) includes an end plate adapted to attach to the mounting bracket (190). Bright et al. disclose securing the end plate of the main housing (18,20) to the mounting bracket (190) such that the motor assembly (16) is supported within the main housing (18,20). Bright et al. disclose that the main housing (18,20) includes an end plate attachable to the stator (174) to support the main housing (18,20). Bright et al. disclose a mounting bracket (190) configured to rotatably support the rotor shaft (166) and adapted to attach to the stator (174), wherein the end plate of the main (18) housing is attachable to the mounting bracket. The invention of Bright et al. has the purpose of improving alignment of the components of the motor.

F. N. Zimmermann et al. disclose the provision of a main housing (20) having an aperture (27) configured to conform to the shape of the motor assembly (70). Also F. N. Zimmermann et al. disclose the provision of a radially extended portion (43,40) on the main housing (20) to enclose at least the bobbin (73). The radially extended portion (43,40) including vent slots (62) such that rotation of the impeller (78) circulates air through the vent slots (62) in the radially extended portion (43,40) to cool the motor assembly (70) is disclosed. F. N. Zimmermann et al. disclose the provision of an end cap (60) attachable to the main housing (20) for encompassing the impeller (78), wherein the end cap (60) includes a plurality of vent slots (62) such that rotation of the impeller (78) circulates air through the vent slots (62) formed in the end cap (60) to cool the motor assembly (70).

The provision of a radially extended portion (61) on the end cap (60) such that when the end cap (60) is attached to the main housing (20), the radially extended portion (43,40) enclosing at least the bobbin (73) is disclosed by F. N. Zimmermann et al. F. N. Zimmermann et al. also disclose that the main housing (20) includes a radially extended projection (43,40) provided to conform to the shape of the radially extended projections of the stator and encompassing at least the bobbin (73). The invention of F. N. Zimmermann et al. has the purpose of cooling the motor components by improving air circulation in and around the motor.

It would have been obvious at the time the invention was made to modify the motor and the method of enclosing the C-frame motor of E. P. Larsh and provide it with the housing configuration disclosed by Bright et al. and F. N. Zimmermann for the

purpose of improving alignment of the components of the motor and improving air circulation in and around the motor.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the C-frame motor of E. P. Larsh with a rotor having a plurality of laminations, since it was known in the art that rotors can be formed by stacking laminations, or by molding a solid structure, and other methods.

### ***Response to Arguments***

E.P. Larsh shows the housing extending radially so as to cover the whole motor and that the radially extended portion of the housing has slots to cool the motor assembly. Zimmermann discloses that the radially extended portion conforms to the shape of the motor assembly. It is obvious to conform the shape of the housing in E.P. Larsh to the shape of the motor assembly as shown by Zimmermann.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Perez whose telephone number is (703) 306-5443. The examiner can normally be reached on Monday through Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308 1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703)


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305 3432 for regular communications and (703) 305 3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

Guillermo Perez  
July 17, 2001

  
NESTOR RAMIREZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800